Measuring Acquisition Workforce Quality Through
Dynamic Knowledge and Performance

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Standard Form 298 (Rev. 8-98)
Prescribed by ANSI Std Z39-18

- Knowledge (TK/EK) central to AWF quality

- Dynamic, individual to org, hard to measure

- KFT & CMMM: are innovative approaches

- We integrate & explore AWF measurement
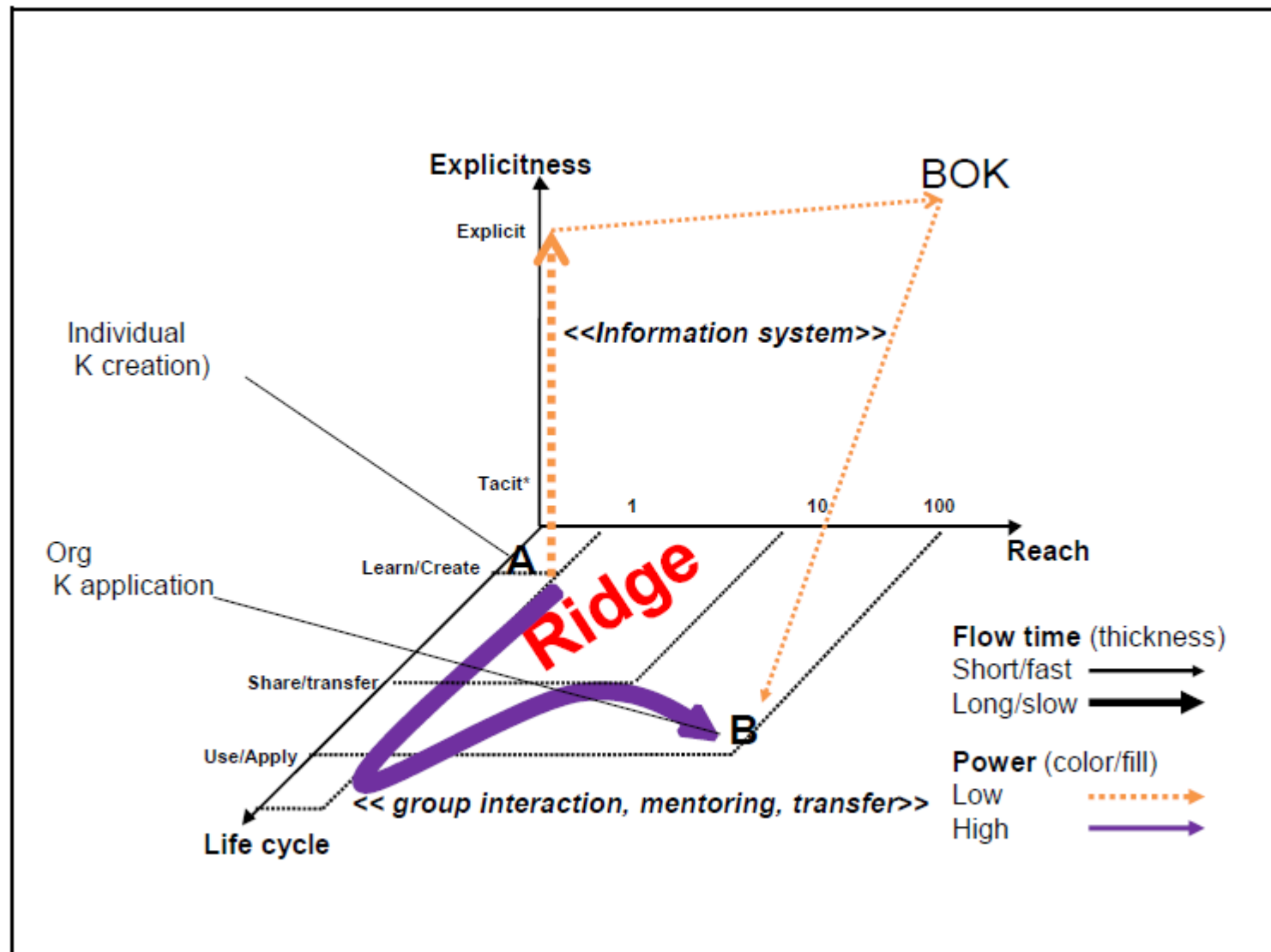
- Like SECMM: 5 capability levels

- + capability & predictability, - risk

- Process focus: efficacy proxy, AWF measure

- KFT links & measures: procurement

- Extend prior qualitative & quantitative studies
  - 2 commands: Org T – H/W, Org R – R&D
  - 12 procurement orgs, n = 228, CMMM L2 - 4
  - 6 processes: procurement planning – closeout

- Regression:
  - 3 TK/EK measures (IV): PCOd, DAWIA, AXP
  - 7 CMMM measures (DV): 6 processes + mean

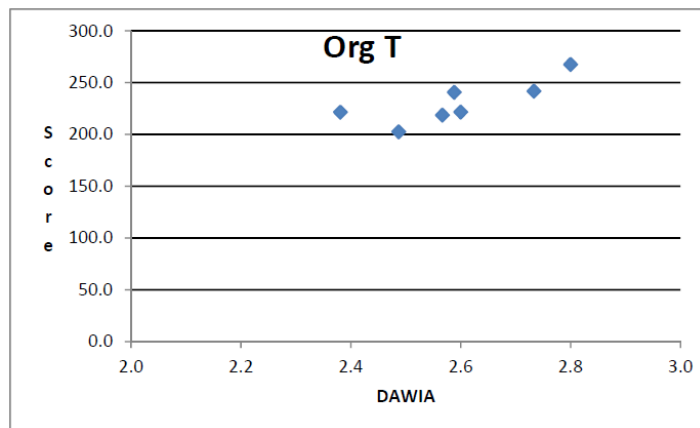| Model	Org T	Org R
PCOd → CMMM	$R^2 = 0.36$, p = 0.15	$R^2 = 0.41$, p = 0.25
DAWIA → CMMM	**$R^2 = 0.64$, p = 0.03**	$R^2 = 0.44$, p = 0.22
AXP → CMMM	**$R^2 = 0.59$, p = 0.07**	$R^2 = 0.27$, p = 0.37
All → CMMM	**$R^2 = 0.71$**, p = 0.24	**$R^2 = 0.72$**, p = 0.64

Figure 8.   Organization T Score-DAWIA Relationship
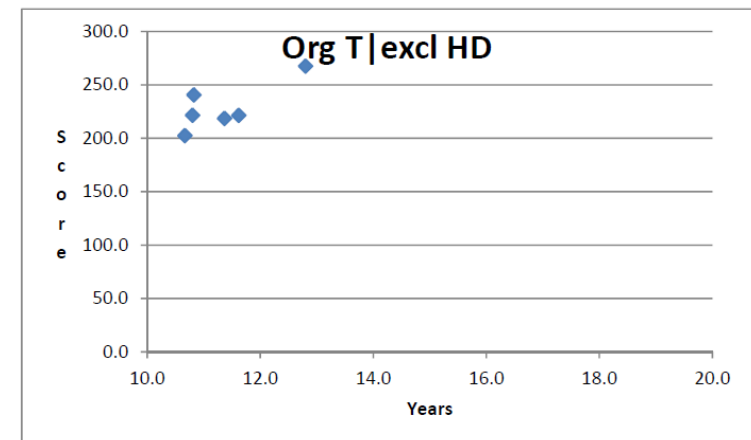

Figure 11.   Organization T Score-Years Relationship (sans outlier)

- ID 3 TK/EK proxies: PCOd, DAWIA, AXP
- Measure CMMM levels: 12 orgs
- Link KFT-CMMM causally
- Explore AWF quality measure
- Potential to predict org performance
- ID promising future research ideas
  - Other orgs, other IVs, PALT & other DVs
  - Dynamics + statics

- Thank you for your interest

- Please see article for details

- Questions & comments welcome
  – Now

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CONTRACT MANAGEMENT MATURITY MODEL©

MATURITY LEVEL	PROCUREMENT PLANNING	SOLICITATION PLANNING	SOLICITATION	SOURCE SELECTION	CONTRACT ADMIN	CONTRACT CLOSEOUT
5 OPTIMIZED						
4 INTEGRATED		S	I	I S X	I	I
3 STRUCTURED	B I T D S X	B I T D X	B T D S X	D T	S X	
2 BASIC	H	H	H	H B	B T D H	B S H X
1 AD HOC						D T

Army Organization T (*n* = 132)   **2010**

CONTRACT MANAGEMENT MATURITY MODEL©

MATURITY LEVEL	PROCUREMENT PLANNING	SOLICITATION PLANNING	SOLICITATION	SOURCE SELECTION	CONTRACT ADMIN	CONTRACT CLOSEOUT
5 OPTIMIZED						
4 INTEGRATED						
3 STRUCTURED	A D	A D	A	A D		A
2 BASIC	I P T	I P T	I P D	I P T	A D / I P T	I P D
1 AD HOC			T			T

Army Organization R (*n* = 96)   **2010**

Table 1. Organization T Knowledge Summary

Org	PCO	DAWIA	Years
AB	0.4	2.6	10.8
AD	0.2	2.6	11.4
AH	0.2	2.5	10.7
AI	0.6	2.8	12.8
AS	0.2	2.6	10.8
AT	0.3	2.4	11.6
HD	0.2	2.7	16.8
All	0.3	2.6	12.1

$n = 132$

Table 2. Organization R Knowledge Summary

Org	PCO	DAWIA	Years
AD	0.5	2.5	14.9
AI	0.5	2.5	12.3
AP	0.5	2.8	13.1
ED	0.6	2.7	15.0
RT	0.4	3.0	14.1
All	0.5	2.7	13.9

$n = 96$

Table 3.   Organization T Maturity Summary

Org	PCO	DAWIA	Years	Score	Maturity
AB	0.4	2.6	10.8	221.6	2
AD	0.2	2.6	11.4	218.5	2
AH	0.2	2.5	10.7	202.5	2
AI	0.6	2.8	12.8	267.5	4
AS	0.2	2.6	10.8	240.6	3
AT	0.3	2.4	11.6	221.4	2
HD	0.2	2.7	16.8	241.7	3
All	0.3	2.6	12.1	230.6	2

Table 4. Organization R Maturity Summary

Org	PCO	DAWIA	Years	Score	Maturity
AD	0.5	2.5	14.9	236.2	3
AI	0.5	2.5	12.3	189.6	2
AP	0.5	2.8	13.1	206.5	2
ED	0.6	2.7	15.0	222.2	2
RT	0.4	3.0	14.1	167.8	2
All	0.5	2.7	13.9	204.5	2
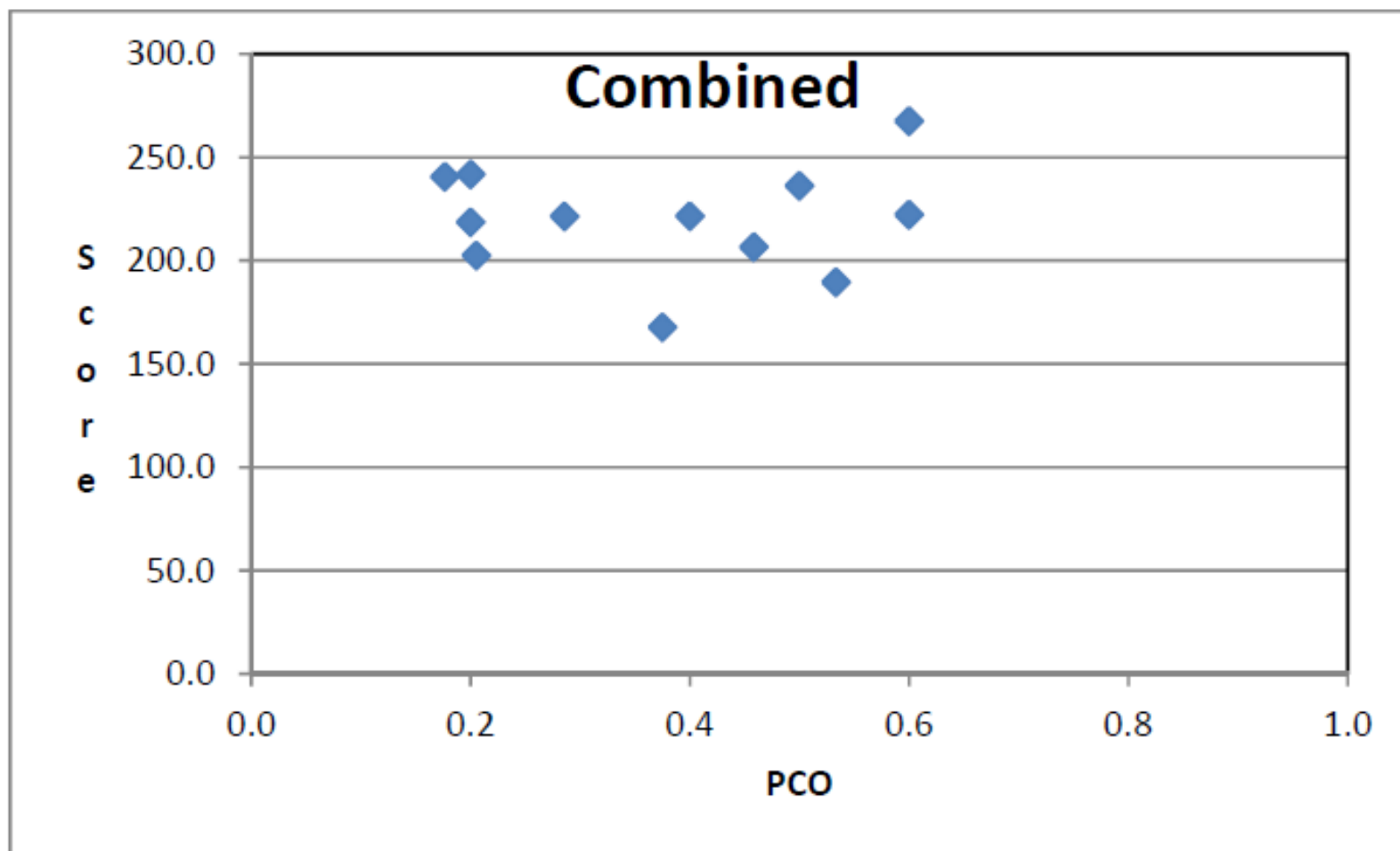
Figure 5. Combined Score-PCO Relationship
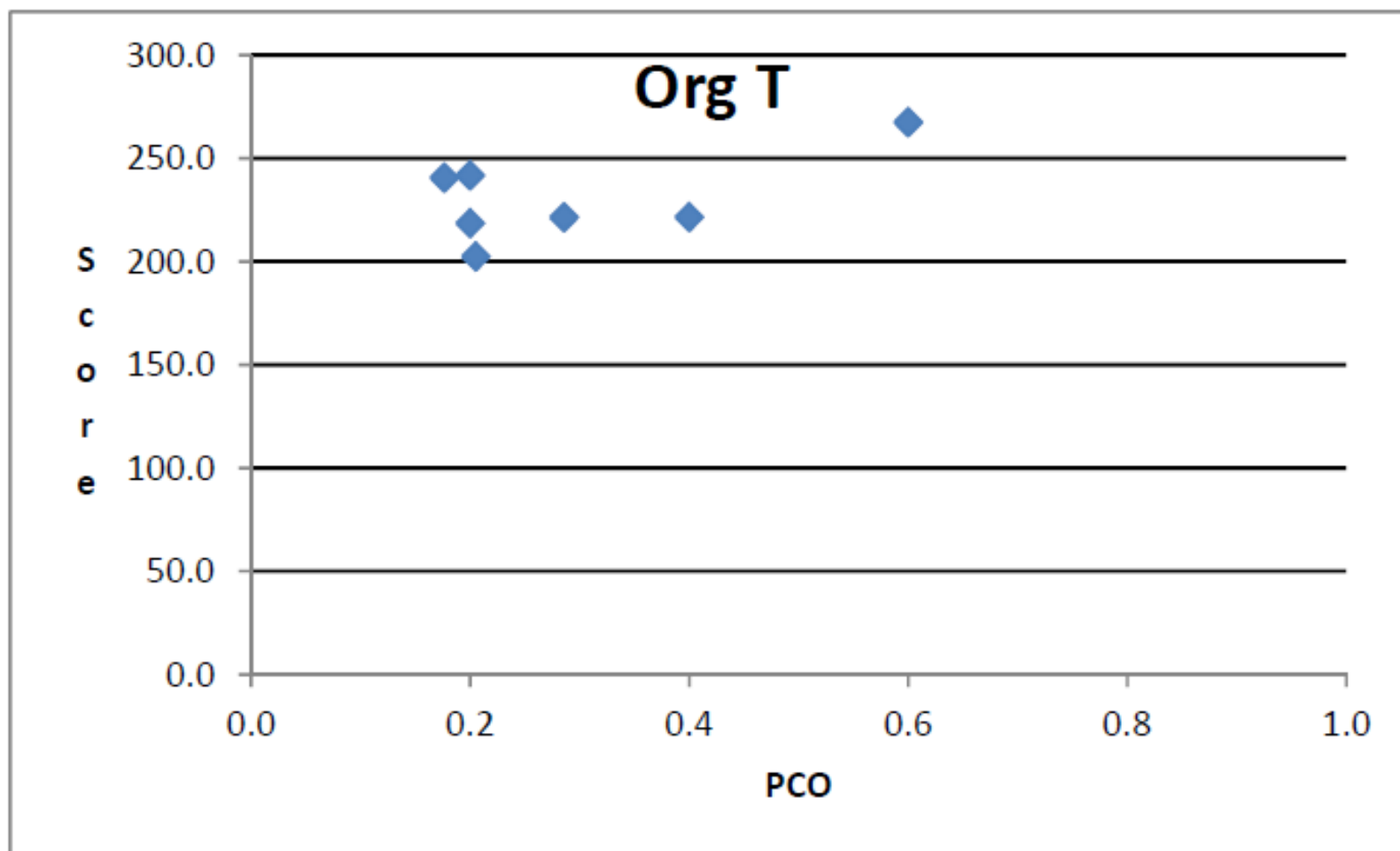
Figure 6.   Organization T Score-PCO Relationship
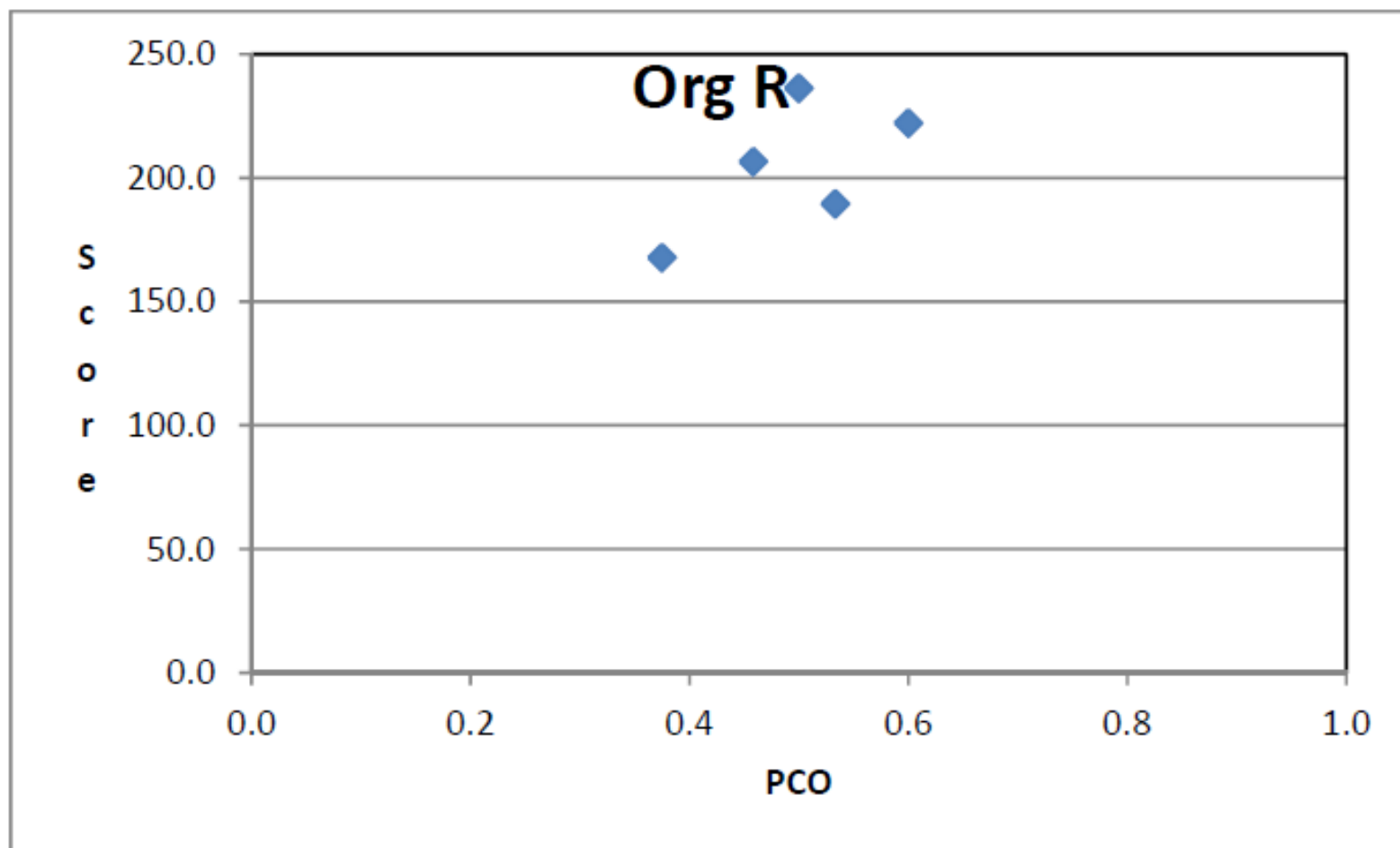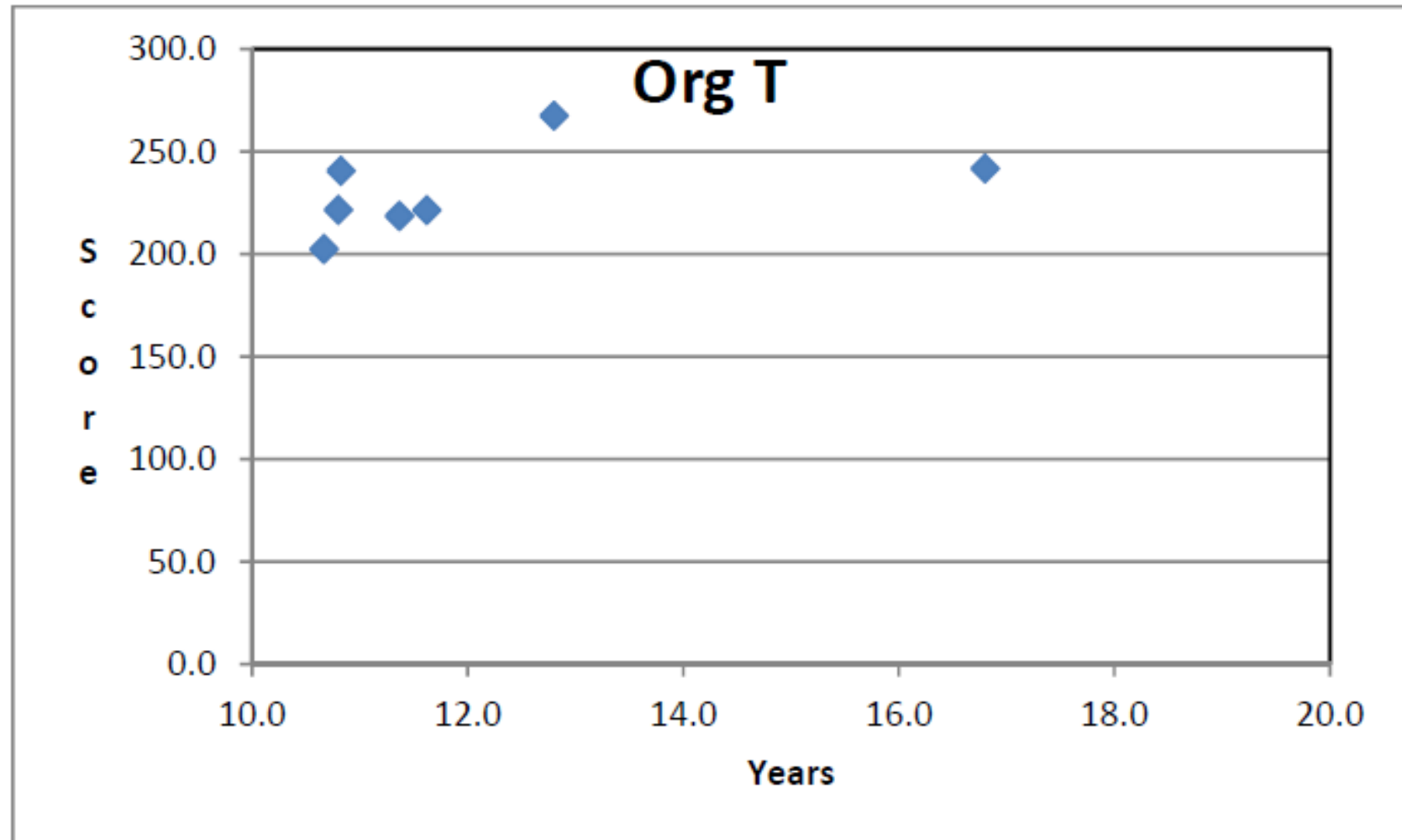
Figure 7.   Organization R Score-PCO Relationship

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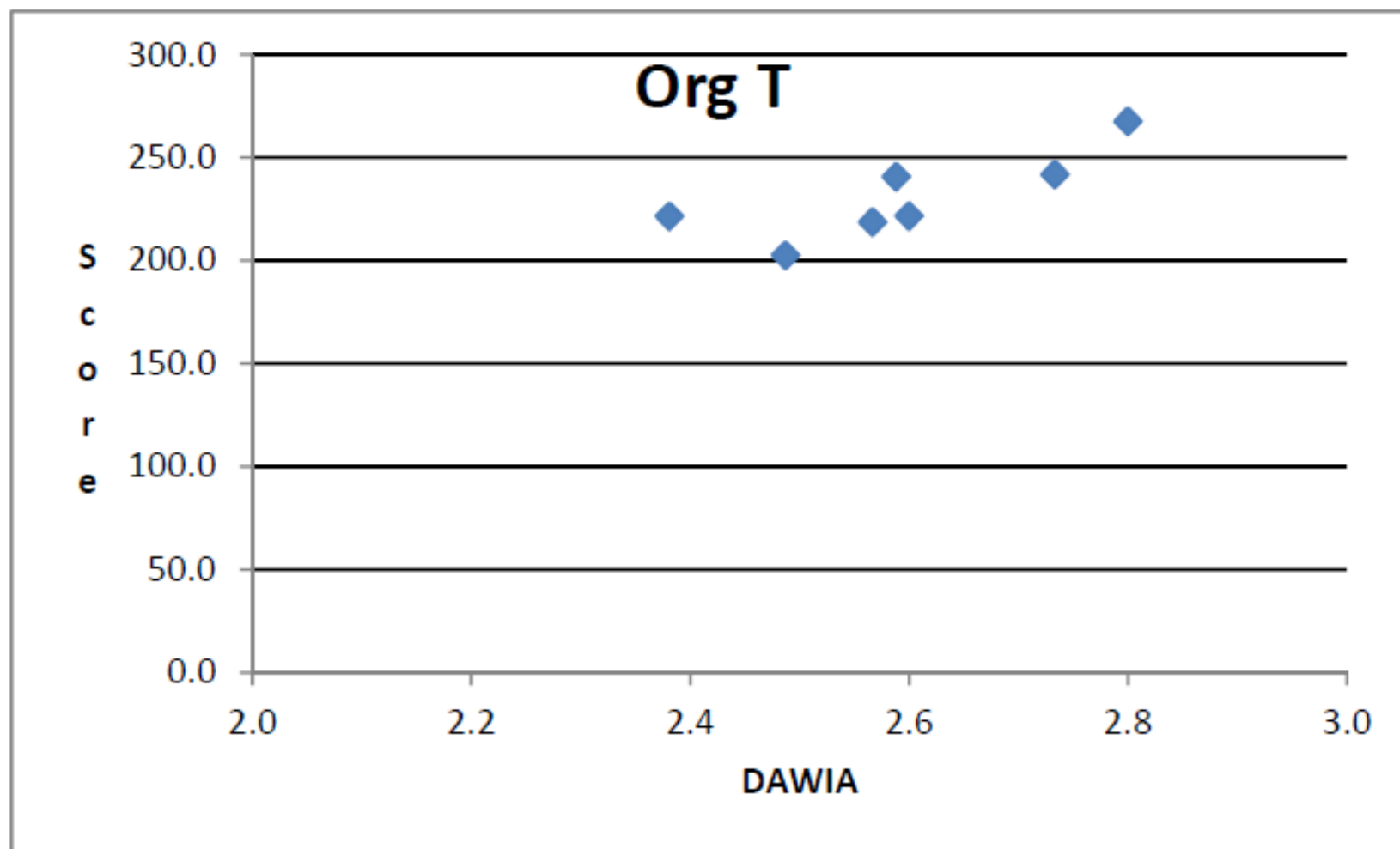
Figure 8.   Organization T Score-DAWIA Relationship
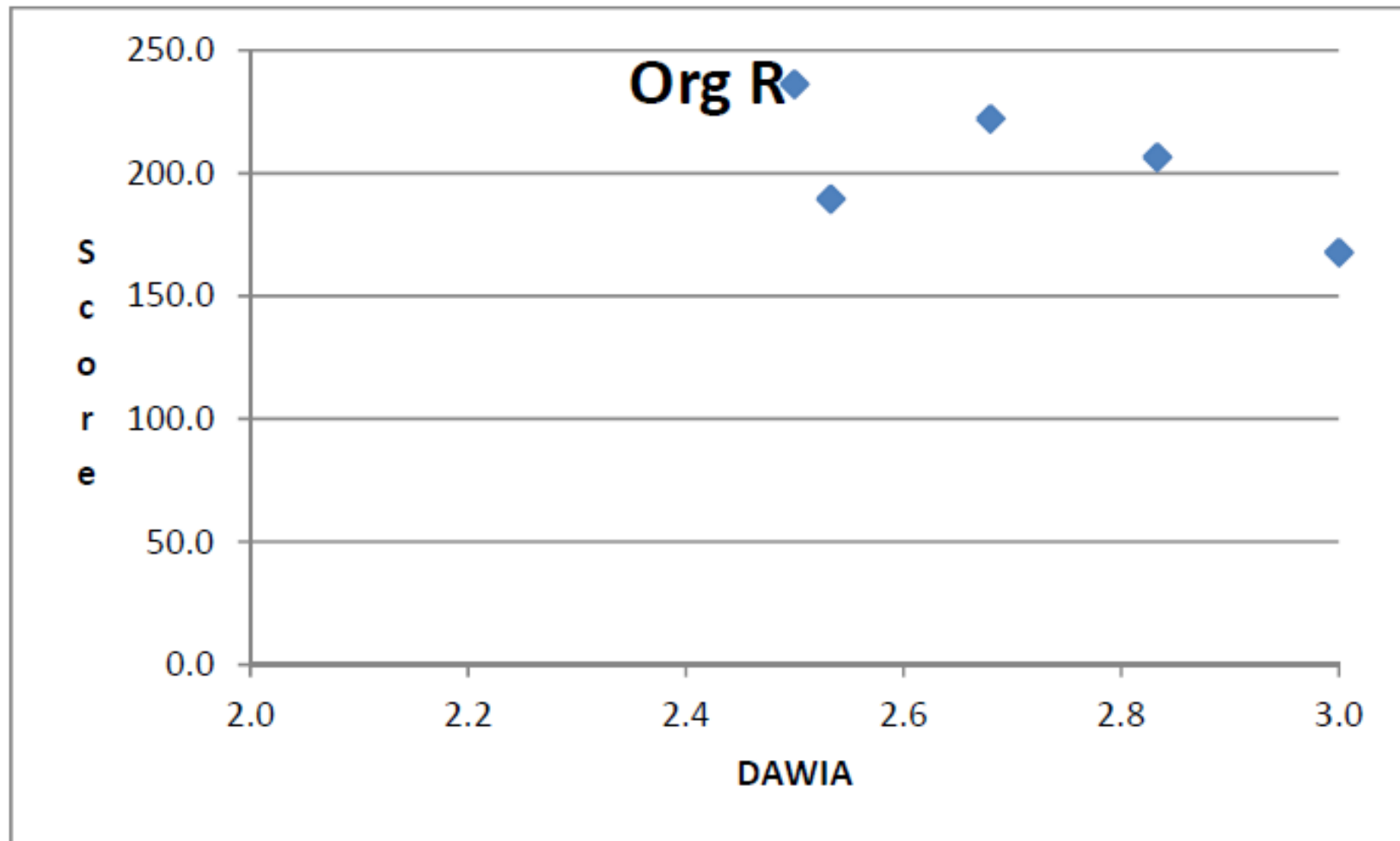
Figure 9.   Organization R Score-DAWIA Relationship

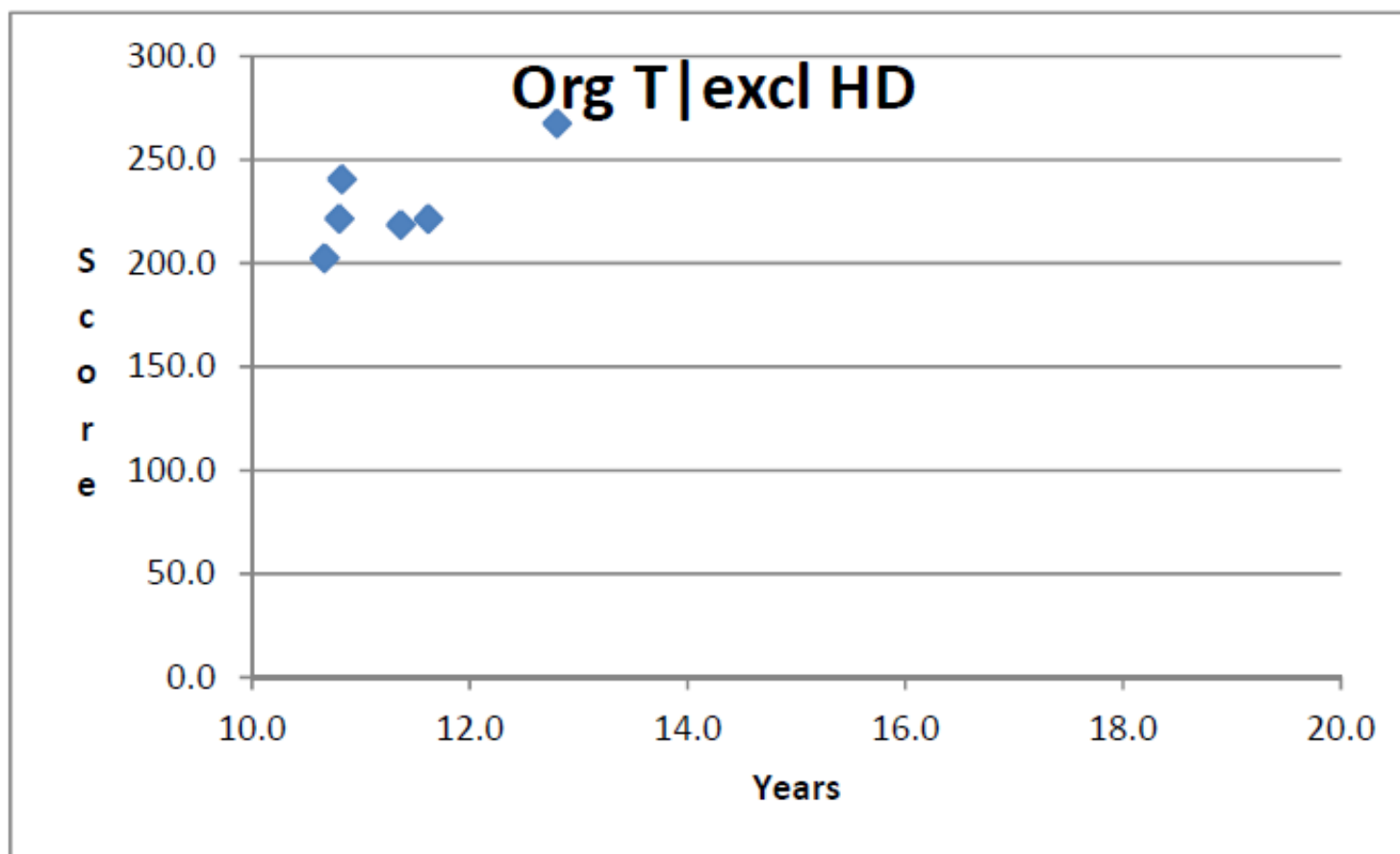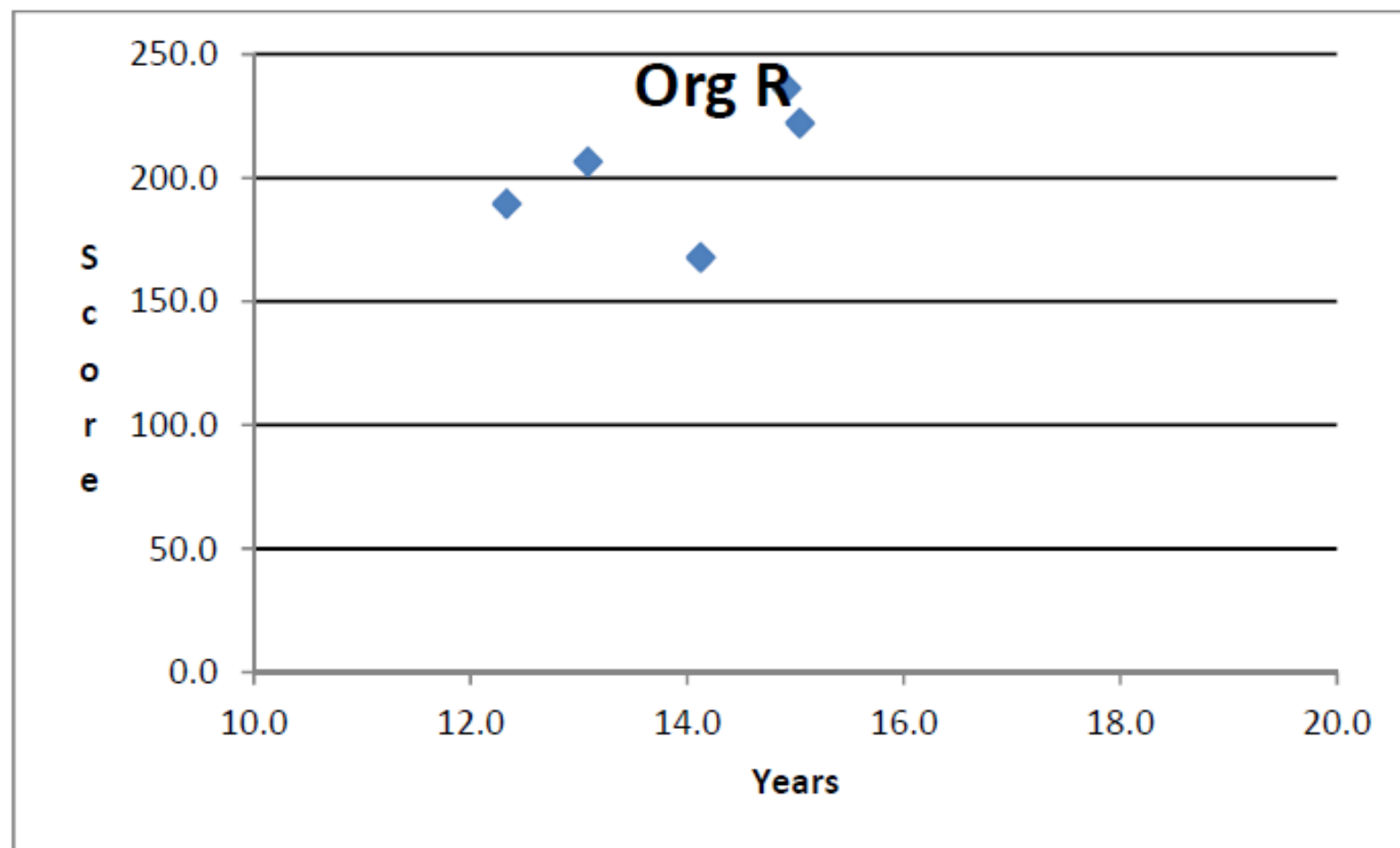**Figure 10.   Organization T Score-Years Relationship**

Figure 11.   Organization T Score-Years Relationship (sans outlier)

Figure 12. **Organization R Score-Years Relationship**